


Federal Reserve's Internal Century Date Change Project

The Federal Reserve's Century Date Change (CDC) project is far-reaching, affecting every organizational entity within the Federal Reserve, as well as all of the financial institutions it serves. The CDC problems stem from many years of computer program coding practices that included the standard practice of deleting the first two digits (or the century date) of the year. Now, because dates are used in dollar-value transactions, calculations, and records maintained by the Federal Reserve, the problem affects virtually every business area and application.

The objective of the Federal Reserve's CDC project is to ensure that computing systems and networks within the Federal Reserve System operate unimpeded as we move into the next century. The success of this project will be measured by the absence of date related system problems, i.e. applications will continue to run smoothly.

Federal Reserve systems (e.g., software, hardware) are defined as compliant if they can demonstrate correct management and manipulation of data involving dates, including single-century and multi-century formulas, without problems. This includes processing of daily transaction data, as well as data spanning the period before, during, and after the turn of the century.

While the Federal Reserve's primary focus is on its own readiness, a large part of the project is devoted to communicating information to depository institutions using Federal Reserve services regarding their own year 2000 projects, as well as communicating information to  business partners (vendors, utility industry, etc.) to help them ensure their readiness.

The project addresses CDC readiness for all computer software in the Federal Reserve System. It encompasses national and local software, hardware, and the associated communications components.

The Federal Reserve's CDC program employs three main efforts: compliance; communication; and administration.

- The **compliance** effort identifies problem areas, corrects deficiencies, tests and implements CDC-ready software or hardware into production. In addition, the project provides a clearing house for CDC information on building-related "automated" systems such as elevators, air-conditioning, and vaults. Individual Reserve Banks have all implemented their own programs to ensure that software, hardware and physical facilities will be ready long before the year 2000.
- The **communication** effort focuses on CDC awareness in the financial services community, customer notification of the compliance status of Federal Reserve products (e.g., Bulkdata, Fedline, etc.), any necessary file or message format changes that may be required, and the information our customers need in order to test

their system changes with us. Our external communication includes interaction with other agencies, such as the U.S. Treasury.

- The **administration** effort consists of coordinating and tracking project activities so that all areas of the project are running smoothly.

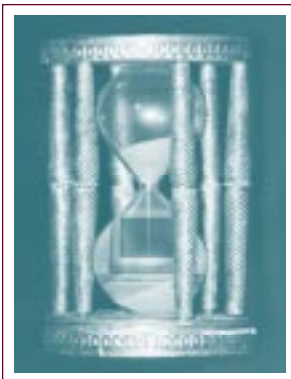
To ensure success for the Federal Reserve's Century Date Change project, the following activities are being undertaken by Federal Reserve staff:

- Coordination of resources throughout the Federal Reserve System to provide recommendations for common solutions and resolution of cross-functional issues; *(ongoing)*
- Management development of an overall CDC project plan, including timetables for the various century date change milestones, such as guideline dates for compliance, testing, and implementation; *(plan written, management ongoing)*
- Identification of vendors that can provide support to the readiness effort; *(completed 1998)*
- Identification of date vulnerabilities within the Federal Reserve's computer systems; *(completed 1998)*
- Tracking of vendor readiness, individual District progress, and national Federal Reserve software issues; *(ongoing)*
- Promotion of awareness of the problem to all Districts, including all business areas within the Federal Reserve System, vendors, and other business partners; *(ongoing)*
- Identification of areas in which common, System-wide approaches to CDC issues will contribute to the success and cost control of the overall project; *(ongoing)*

- Recommendation of the acquisition or development of common tools and services that will contribute to the success of the overall project; *(completed 1998)*
- Establishment of certification criteria for software and hardware compliance; *(completed 1998)*
- Identification of hardware and software dependencies for modifications and testing; and *(completed 1998)*
- Facilitation of the exchange of information related to CDC activities between Districts, national Central Bank functions, Product Offices managing the national software, the Board of Governors, the U.S. Treasury, and Federal Reserve Automation Services (FRAS). *(completed 1998)*

All readiness activities for critical software and hardware (e.g., Accounting, ACH, Billing, Book-Entry Securities, Checks, Fiscal Services, Funds Transfer, Statistics, FedLine, etc.) will be completed by mid-year 1998; all noncritical software-readiness activities are targeted for completion by year-end 1998.

The Federal Reserve opened a customer test facility on June 29, 1998, which allows any institution using Federal Reserve services the opportunity to test its interfaces in a special future-dated environment. All Federal Reserve customers were sent information on the 1998 Customer Test Schedule in the first quarter of 1998. The Test Schedule for 1999 will be released in the fourth quarter of 1998. This will provide all users of Federal Reserve services with testing opportunities and a time cushion for unexpected problems or delays in order to ensure timely completion of readiness activities.



Federal Reserve's Century Date Change Project Questions and Answers

What is the Federal Reserve doing to help prepare the industry for the century date change?

Achieving year 2000 readiness in the banking industry is critical to ensuring the safety and soundness of the banking system. For this reason, promoting year 2000 readiness by banking organizations is one of the highest priorities of the Federal Reserve System.

The Federal Reserve has completed the first cycle of year 2000 reviews of all state member banks and other organizations subject to Federal Reserve supervision as of June 30, 1998. The examinations were conducted as part of an interagency effort developed by the Federal Financial Institutions Examination Council (FFIEC). Large banking organizations are making progress in addressing the issue and are advancing into the testing phase of the program. Small banks are finding it helpful to develop user groups to work closely with their service providers so they can jointly participate in testing of services rather than have each bank test all products separately. The FFIEC has set a December 31, 1998, target date for completion of internal testing.

The Federal Reserve's Year 2000 Supervision program has advanced to Phase II, which will include a second round of examinations focused on continued progress in systems renovations, testing, and development of contingency plans. In addition to the examinations program, Federal Reserve regulatory staff, in cooperation with the FFIEC, has contributed to the development of a series of papers that act as guidelines for all financial institutions working on year 2000 projects.

Additional information on the examination program and regulatory guidelines for year 2000 can be found

on the Board of Governors of the Federal Reserve System's web site at:

<http://www.bog.frb.fed.us/y2k>

What is the Federal Reserve doing to prepare its own computer systems for the year 2000 rollover?

In order to address year 2000 operational readiness for Federal Reserve computer systems, the Century Date Change (CDC) project was started in 1995. This comprehensive project is progressing according to schedule, and the Federal Reserve opened its test facility to customers on June 29, 1998. In addition to providing banks with regular weekday testing opportunities for key electronic services such as Fedwire^{®1} (the Federal Reserve's electronic system for large-dollar transfers of funds and securities), six designated "Shared Testing Days" are scheduled for the last half of 1998. Shared tests will give depository institutions opportunities to test multiple Federal Reserve services. "End-to-end" testing – between customer end points – is also supported this year for electronic payment applications, such as Fedwire and the Automated Clearing House (ACH).

How do the Federal Reserve's depository institution customers obtain information about testing and other important year 2000 issues?

To keep the financial services industry and those institutions using Federal Reserve payments services fully informed about our CDC project, the Federal Reserve has sent a series of newsletters and bulletins to all financial institutions.

The newsletters are focused on awareness of year 2000 issues, with tips for managing year 2000 projects, and

¹ "Fedwire" is a registered trademark of the Federal Reserve Banks.

² The FFIEC Interagency Statement (April 10, 1998) on "Guidance Concerning Testing for Year 2000 Readiness" states that "An application or system is mission-critical if it is vital to the successful continuance of a core business activity. An application also may be mission-critical if it interfaces with a designated mission-critical system."

provide general information for depository institution managers and employees. The bulletins provide technical information specifically for Federal Reserve customers. They contain critical information on the Federal Reserve's CDC project that the institutions need to know in order to continue to maintain their electronic interfaces with the Federal Reserve after December 31, 1999. All newsletters and bulletins can be found on the Federal Reserve's CDC Internet site at:

<http://www.frbsf.org/fiservices/cdc/>

In addition to providing written materials, Federal Reserve staff is meeting regularly with industry and other interested groups to discuss year 2000 issues and provide status reports on the Federal Reserve's CDC project. Moreover, each Federal Reserve office is providing assistance to its customers, including support for customer testing.

Who is overseeing the Federal Reserve's Century Date Change Project?

In addition to relying on internal and external auditors and regular oversight by the Reserve Bank Presidents and the Board, the Federal Reserve's program is currently being reviewed by the General Accounting Office. Federal Reserve staff report quarterly on the status of the Century Date Change project to the Congress (House and Senate Banking Committees). In May 1998, the Board provided a CDC status report to the Office of Management and Budget, which reported to Congress that the Federal Reserve had achieved "excellent progress on all phases" of its project.

Will the financial services industry be ready to move to the next century?

While no one can guarantee a problem-free rollover to the year 2000, the Federal Reserve, the nation's depository institutions, and other key players (including vendors) are devoting enormous resources to fixing their date-related computer code and testing their computers to ensure that their systems work properly on dates after December 31, 1999. Depository institutions also are making contingency plans for working around unanticipated date-related problems from any source. Readiness activities such as rewriting computer code, internal testing, and testing with vendors and other external parties will be completed long before the end of 1999 for all critical applications.

The Federal Reserve believes it is important that state member banks and other financial institutions it supervises consider the needs of consumers as the institutions prepare to provide uninterrupted service to customers. Accordingly, a bank's mission-critical systems² should include those

necessary to ensure that the institution can continue to comply with consumer protection laws and regulations. In addition, the Federal Reserve is working with various international supervisors to share information and help promote effective year 2000 efforts worldwide.

Finally, the financial services industry is working with corporate customers and major service providers, such as the telecommunications and electric power industries, to promote year 2000 readiness and to avoid any adverse impact on financial institutions. To help inform small businesses as they develop their own year 2000 projects, the Federal Reserve has developed a brochure entitled "Small Business and the Year 2000." It can be found on the Federal Reserve's web site at:

<http://www.frbsf.org/fiservices/cdc/>

What should customers of depository institutions be doing at this point?

Education on year 2000 issues is important for consumers, and they should be aware of how depository institutions are preparing for the century rollover. The Federal Reserve believes that customers of depository institutions should know the following:

- date-related problems in computer systems are technically easy to fix but pose a unique challenge because dates are so common in computer code;
- companies are focusing first on mission-critical systems to make sure that their key computers can continue to operate as the clock rolls over to January 1, 2000;
- the Federal Reserve and all of the depository institutions using Federal Reserve services will test and re-test their systems before the end of 1999; and
- the financial services industry has always placed great emphasis on reliable service and has considerable experience managing technology and planning for contingencies. The Federal Reserve and other FFIEC agencies are working with depository institutions in their efforts to achieve year 2000 readiness.

As the date draws near, customers who have an interest in their financial institutions' readiness activities can inquire about their bank's or thrift's success in rewriting date code and in testing their computers. Consumer education programs will soon be underway in the financial services industry, and many institutions already have consumer information available on year 2000-readiness activities. For the moment, consumers should continue to educate themselves about the year 2000 computer problem and, as always, they should continue to monitor their own financial statements to make sure they are error-free.